



OSWER Innovations Pilot

Sustainable Transit Leadership

The Office of Solid Waste and Emergency Response (OSWER) Assistant Administrator Marianne Horinko in December 2001 initiated a series of innovative pilots to test new ideas and strategies for environmental and public health protection to make OSWER programs more efficient, effective and user-friendly. A small amount of money is set aside to fund creative proposals submitted by OSWER Headquarters and Regional employees. EPA employees are encouraged to talk to States, Tribes, local government and external stakeholders about proposal ideas and partner on a project. The creative projects test approaches to waste minimization, energy recovery, recycling, and land revitalization that may be replicated across various sectors, industries, communities and regions. We hope these pilots will pave the way for programmatic and policy recommendations by demonstrating the environmental and economic benefits of creative, innovative approaches to the difficult environmental challenges we face today.

BACKGROUND

Transit construction and demolition activities create significant waste streams and use large quantities of building materials. Building-related construction and demolition debris (C&D) contributes 136 million tons of material to landfills in the U.S. annually. This accounts for more than 40% of the combined C&D and municipal solid waste stream. Although the U.S. Green Building Council and others have established guidelines for the design of environmentally preferable commercial buildings, no standards have yet been developed specifically for use by transit authorities. Nationally, public transportation ridership has increased each of the past six years and Americans rode public transportation a record 9.5 billion times in 2001.

Transit provides tremendous environmental benefits by reducing automobile air emissions. As interest in sustainable transit practices increases, additional information on sustainable building opportunities specifically targeting transit projects is needed to reduce waste, conserve energy, develop public recycling areas, and incorporate recycled-content building materials. Although many public transit construction projects receive federal funding, transit officials often are unaware of existing federal requirements under the resource Conservation and Recovery (RCRA) section 6002 for the procurement of construction and landscaping materials used on these projects.

(Information on these requirements is available on EPA Comprehensive Procurement Guidelines web site <http://www.epa.gov>.)

PILOT APPROACH

The Bay Area Rapid Transit (BART), a multi-county California agency, in partnership with U.S. EPA Region 9 will develop a model for sustainable public transit development practices at one of the largest transit authorities in the nation, and one of the most prominent inter-city transit authorities in the world. BART has more than 100 million riders per year.

Region 9 will work with BART officials to target key energy efficiency, waste reduction, recycling, and buy-recycled priorities, with guidance from the U.S. Department of Energy and the U.S. Green Building Council.

The project team will implement and document short- and long-term transit project design, procurement, and operations and maintenance practices to directly reduce waste, increase recycling, and increase the use of recycled content materials. Training, specification revisions, and product substitutions will be documented. Documentation of the savings and costs associated with the specific projects will be shared with other transportation authorities through conferences, publications, and multi-media communications.

Examples of potential projects include revising BART's facilities standards to include RCRA Comprehensive Procurement Guideline construction and landscaping items, increasing energy efficiency standards for new systems or upgrades, increasing station recycling capacity and outreach, and specifying building materials to reduce indoor air emissions at transit facilities.

INNOVATION

Although green highway and building initiatives are well underway, little has been done to green transit agencies beyond establishing standard recycling programs. The Pilot will promote green technologies and practices to reduce waste and promote sustainability in public transit agencies.

BENEFITS

Transit construction projects can be modified to improve the protection of public health and safety and effectively enhance green development within connected communities. This is an area that has not been addressed and has immense potential to reduce waste, conserve energy, increase the use of recycled content materials, and educate transit users about the benefits of green building and recycling. The strategies can be transferred and used by other transit organizations across the country.

CONTACTS

U.S. EPA Region 9 Office of Pollution Prevention and Solid Waste, Timonie Hood, 415-972-3282

San Francisco Bay Area Rapid Transit District, Tian Feng, AIA, 510-464-6549.

For additional information, visit the EPA OSWER Innovations web site at: www.epa.gov/oswer/IWG.htm